# UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

## Research Fellow in Modelling Anti-Microbial Resistance in Agri-Systems, Faculty of Biological Sciences

**Salary: Grade 7 (£33,797 - £40,322 p.a.)**

**Due to funding limitations it is unlikely an appointment will be made above £36,914.**

**Reference: FBSBY1121**

**Full time, Fixed-term until 31 May 2022**

# Research Fellow in Modelling Anti-Microbial Resistance in Agri-Systems
# School of Biology, Faculty of Biological Sciences

**Are you an ambitious researcher looking for your next challenge? Do you have an established background in modelling complex systems? Do you want to further your career in one of the UKs leading research intensive Universities?**

As part of the [UK-Argentina collaborative project](#) on Anti-microbial resistance (AMR) in the Environment funded by [BBSRC/NERC-CONICET](#), you will work closely with an international team of researchers and stakeholders across multiple disciplines from leading institutions in the UK and Argentina. You will use a systems modelling approach to investigate the spread and amelioration of antimicrobial resistance (AMR) and its related impact on poultry productivity and welfare in commercial broiler farms in Argentina.

The project will gather data via ex-situ experiments with field trials on commercial broiler farms, in order to quantify AMR associated with broiler production and the role of litter in AMR-related risks to birds, humans and the environment. A key aim is to develop a framework to understand AMR transference to the environment and evaluate the scientific evidence to inform interventions for suitable litter management practices in commercial broiler farms in Argentina, and more widely in low and middle-income countries (LMICs). Ultimately, this project aims to inform and influence policy around antimicrobial resistance in livestock in Argentina and other LMICs.

In this role, data that has been collected and analysed as part of the wider project will be integrated into a systems model to identify key predictors for the emergence and transmission of AMR bacteria within the broiler chicken agri-system. You will work with stakeholders to explore and develop in-depth scenarios for increased risk of AMR transmission and consider potential mitigation strategies. You will develop an animal health and welfare risk assessment for AMR transmission across the litter cycles.

You will have a PhD (or close to completion) in modelling complex systems or a closely allied discipline along with experience in creating, writing, enhancing, and running code in R. You will have excellent communication skills with the ability to talk to different audiences, as you will be collaborating with a large team of researchers across multiple disciplines both in the UK and overseas.

# What does the role entail?

As a Research Fellow, your main duties will include:

- Designing, planning and conducting a programme of investigation, stakeholder engagement and policy development, in consultation with Professor Lisa Collins and Dr Graziella Iossa;
- Generating independent and original research ideas and methods in modelling complex systems with an aim to extend the AMR in Argentine Broiler Poultry Systems research portfolio;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at national and international meetings;
- Working independently and as part of a larger team of researchers, both internally and externally to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- Contributing, where relevant and necessary, your skills and expertise to other research projects and proposals within the Animal Welfare Epidemiology Research Group;
- Contributing to, and encouraging, a safe working environment.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

# What will you bring to the role?

As a Research Fellow, you will have:

- A PhD (or close to completion) in modelling complex systems or a closely allied discipline;
- Experience in creating, writing, enhancing, and running code in R;
- Strong analytical skills, with the ability to work accurately and carefully, designing, executing, and writing up research independently;

- A developing track record of peer reviewed publications in international journals;
- Excellent communication skills, both written and verbal and the ability to communicate your research at national and international conferences, to academics in other disciplines and to stakeholders;
- The ability to work well both independently and as part of a team;
- Strong initiative and a pro-active approach, with excellent organisational, planning and self-management skills, including the ability to prioritise workloads to meet deadlines/demand and deliver high quality work under pressure;
- A strong commitment to your own continuous professional development.

You may also have:
- Experience in a field of research relating to Animal Science and/or AMR in the environment;
- Experience of, or an interest in science-policy translation and/or knowledge exchange;
- Evidence of pursuing external funding to support research.

## How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23:59** (UK time) on the advertised closing date.

## Contact information

To explore the post further or for any queries you may have, please contact:

**Lisa Collins, Professor of Animal Science**
Tel: +44 (0)113 343 5940
Email: L.Collins@leeds.ac.uk

# Additional information

The University of Leeds and the Faculty of Biological Sciences are committed to providing equal opportunities for all and offer a range of family friendly policies. The University is a charter member of Athena SWAN (the national body that promotes gender equality in higher education), and the Faculty of Biological Sciences was reawarded a Bronze award in 2017. We are proud to be an inclusive Faculty that values all staff, and are happy to consider job share applications and requests for flexible working arrangements from our employees. Our Athena SWAN webpage provides more information.

Find out more about the Faculty of Biological Sciences and the School of Biology.

**Working at Leeds**
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

**Candidates with disabilities**
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

# Criminal record information

**Rehabilitation of Offenders Act 1974**
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.